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IS FARM CHEMURGY A PANACEA?

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Revised and edited discussion by Alfred D. Stedman, Assistant Administrator of AAA, at the "Plant to Prosper" meeting of farmers at Memphis, Tennessee, December 16, 1936, commenting upon an address there by Mr. Carl B. Fritsche, managing director of the Farm Chemurgic Council. This discussion includes much of the substance but not the exact text of Mr. Stedman's talk, which was extemporaneous.

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I came to Memphis for the specific purpose of discussing the "Plant to Prosper" program, being carried on by farmers in this region in cooperation with the Memphis Commercial Appeal.

I brought with me a prepared address which has already been given to the newspapers for release this afternoon. This address brings out clearly the value of the "Plant to Prosper" campaign and its close relationship to the work of the Triple A in stimulating diversified farming, encouraging soil conservation, and in helping to stabilize production in the South of surplus export crops. The Memphis Commercial Appeal has done a fine thing in sponsoring and carrying on this program.

In this meeting today, however, it is necessary for me to depart from the text of the prepared address and to make an entirely different kind of talk than I had intended. For one thing, this audience has heard the very fine address of Mr. Delos James, of the United States Chamber of Commerce, showing the need for greater diversification in agriculture and I do not wish to cover again ground that already has been very ably covered by him.



My second reason for asking permission to depart from the text of the prepared address is that Mr. Carl B. Fritsche, the second speaker, has just concluded an attack upon policies of Secretary Hull and Secretary Wallace. Mr. Fritsche has spoken for the Farm Chemurgic Council, of which he is managing director. In his speech here today, he has urged the Chemurgic Council's proposition that agriculture should rely upon development of new industrial uses of farm products to provide enlarged markets at home. He has advocated this proposition first as a substitute for Secretary Hull's policy of reviving export trade by lowering tariff barriers through reciprocal trade agreements with other countries, and second as a substitute for the Triple A agricultural conservation program directed by Secretary Wallace.

Solely on my own responsibility, I want to discuss the other side of the proposition advanced by Mr. Fritsche. But in so doing, I hope first of all to make clear the position of the Department of Agriculture with reference to development of new industrial outlets for farm products.

In his criticism of Secretary Wallace's article published in the New Republic of December 2, Mr. Fritsche has pointed out that the article did not discuss possibilities of finding new industrial outlets. But if from that fact it is implied that Mr. Wallace and the Department of Agriculture therefore are indifferent to or uninformed about possibilities in this direction, the facts are exactly contrary to any such implication. The Department of Agriculture is strongly in favor of all practicable efforts to find new industrial outlets for farm products. Largely under direction of Dr. Henry G. Knight, Chief of the Bureau of Chemistry and Soils, the Department has started a large number of scientific experiments designed to discover and develop new uses and new demand in industry for products of the farm. Examples of the Department's efforts are the sweet potato starch plant at Laurel, Mississippi, a producers' cooperative



undertaking, initiated and financed by the government; the experiments sponsored by the Triple A to promote the use of cotton in highway building, and the establishment of the Regional Soybean Laboratory at Urbana, Illinois. The Department's work in the general field of developing new industrial uses of farm products dates back more than sixty years. Since 1933 when Mr. Wallace became Secretary the Department has given more encouragement than ever before to it. In Mr. Fritsche's recital of chemurgic projects, he was talking in instance after instance of projects which were planned, initiated and are being carried on by the Department of Agriculture. In all, the Department's list of such projects which are under way right now probably runs well over two score in number. The Department of Agriculture is one of the finest scientific research agencies in the world, and so far as available funds permit, the Department scientists are following every lead that promises to open up new industrial uses for farm products.

A brief statement about the Department's policy and work in this field is contained in a letter which Secretary Wallace sent on May 25, 1936, to Francis P. Garvan, who, as president of the Farm Chemurgic Council, is associated with Mr. Fritsche at the head of the chemurgic movement. Copies of that letter and a report detailing the Department's work have been made public and are available to any one who wishes to write to the Department for them. That letter shows the position of the Secretary and the Department concerning the development of new industrial outlets for farm products. They are 100 per cent in favor of all practicable efforts, by the Farm Chemurgic Council or any other agency, to develop new farm markets in industry. Let no one have any doubts about that. The more markets that the Chemurgic Council can develop by finding new industrial uses for farm products the better.

But the Farm Chemurgic Council's proposition as advanced here today by Mr. Fritsche is entirely different from what I have been describing as the position taken by the Department of Agriculture.



There are two ways to look at farm chemurgy. The first is that farm chemurgy is a good thing in itself, that it undoubtedly offers great opportunities for new outlets for farm products, and that full advantage should by all means be taken of these opportunities. That is the position of the Department of Agriculture.

The other way to look at farm chemurgy is as a panacea for all the problems of agriculture. This is the light in which it has been presented here today. It has been described, not as just one among several beneficial and necessary lines of activity in behalf of agricultural improvement, but as the one line of activity which can be followed to the exclusion of others. The Farm Chemurgic Council is now offering its proposal as a substitute, or to use Mr. Fritzsche's own words, "a constructive alternative" for the vital policies and programs of the Roosevelt Administration.

The effort here is to convince the farmers that they should turn their backs upon the Triple A program, that they should discard the Administration's efforts to expand export outlets for farm products through Reciprocal Trade Agreements, and that for an alternative they should rely solely upon the Farm Chemurgic Council's plan of developing new industrial outlets for farm products.

Mr. Fritzsche's address clearly shows that the Farm Chemurgic Council would go even further than I have stated. It would not only discontinue any Triple A programs which include among their effects a degree of restraint upon production of surplus crops, and dispense with Reciprocal Trade Agreements, but also would sacrifice our foreign trade by embracing anew a policy of "trade isolation and self containment" which means more and higher tariffs. He goes to the lengths of ridiculing administration leaders' efforts to increase foreign outlets for farm products by moderating tariff walls. "They still maintain," he says, "that we must develop our foreign trade (if any) in order to restore normal prosperity to the American farm."



Mr. Fritsche's argument for a policy of higher tariffs and import trade exclusion is the same as that which was advanced in 1930 in behalf of the Smoot-Hawley tariff bill. "The American market for the American farmer" was an attractive argument then and it is an attractive one now. In 1930, when the Smoot-Hawley bill was up, its backers predicted that its passage would bring prosperity back in short order. But the actual results were foreign tariff retaliation, loss of trade, and wreckage of farm prices. By 1933 scarcely a man could be found who would stand up and defend the Smoot-Hawley Act.

The effects on the South of a policy of higher tariffs and trade exclusion were disastrous in the years following 1930 and they will again be disastrous if they are tried once more. The South depends upon export outlets for marketing of more than half its cotton crop. Does the Farm Chemurgic Council contend that new industrial outlets in this country could come anywhere near making good a sudden loss like that?

The blow to the farmers of America who produce export crops such as cotton, tobacco, wheat and lard from loss of all foreign markets would be terrific.

The Farm Chemurgic Council spokesman attacks the Reciprocal Trade policy on the ground that it is unfair to agriculture. But the abnormal increases in our farm imports upon which he lays so much emphasis, and the disproportionate increases in industrial over agricultural exports are largely due to the effects of two great droughts, although Mr. Fritsche neglected to say so.



The present tariff policy represents a gradual reversal of the high tariff exclusionism policy of the Smoot-Hawley Act. The idea of cooperative agreements between countries for gradual moderation of extreme barriers to international trade is of first importance to agriculture because agriculture depends upon foreign markets for a larger part of its market than industry. The trade agreements give agriculture a square deal in that they have lowered agricultural rates of duty less than the industrial rates. Back of the present trade agreements is the vision to see that our country can not ask other nations to adopt more moderate tariff policies if we are going to cling to high tariff exclusionism ourselves.

In embracing a policy of tariff exclusionism, the Farm Chemurgic Council is proposing to farmers that they should sacrifice their foreign markets. It is doing this at a time when prospects exist for moderate improvement in foreign demand for American farm products.

In this speech of Mr. Fritzsche, the Farm Chemurgic Council is also proposing to the farmers that they simultaneously surrender the Triple A soil conservation program, because this program has a secondary effect of restraining somewhat the production of export farm products.

It is opposed to the farmers acquiring for future use any direct means of production control. So the Farm Chemurgic Council wants the farmers to give up their foreign markets, and also to give up any programs that might restrain production to fit the domestic market. The Chemurgic Council's proposition amounts to a recommendation of unlimited agricultural production of farm products and no markets or dwindling markets abroad for surpluses. It wants to lead the farmers back to the Smoot-Hawley tariff policy and persuade them to give up their Triple A program at the same time. In return for what the farmers would give up, the Chemurgic Council offers them the prospect of developing new industrial uses and hence new markets for farm products at home.



Before farmers agree to this proposition I suspect they will want to scrutinize it to see whether it is in fact a panacea. I believe they will find that while it is certainly a necessary and promising line of activity, it is one upon which they can not rely to solve the whole broad problem of their need for markets.

I want to point out a few of the limitations of the farm chemurgic movement. First of all, developments of new uses of raw materials through scientific research are not accomplished over night. They are usually the result of slow and painstaking work, often taking years of the efforts of highly trained men. Tremendous as the results of such efforts may ultimately prove to be, the scientific men in the Department who are devoting their lives to them would be last to suggest the farmers giving up the Triple A program and accepting the industrialists' ideas of higher tariffs in the hope that the resulting farm price and income losses would be immediately made good by markets instantly created by new industrial uses. The development of new markets in this way is a long-time project, and it is important that farmers recognize it as such.

For another thing, even when scientific men achieve an astounding success, and the results in some ways are highly advantageous to farmers, the impact in other ways may tend to cancel out or overbalance entirely the good effects upon the farmers' markets. For example, take the development of the automobile, and other motor vehicles, which have been of tremendous use to society in general. This development has had good effects upon agriculture in many ways, including the placing of purchasing power for farm products in the hands of the employees in the automobile industries. But the automobile has also deprived farmers of a market for around 35 million acres of corn and oats, once fed to horses and mules which are not now needed to do work that can be better done by automobiles.



Farmers also know that it is a mistake to suppose that the effects of scientific developments upon agriculture end with the discovery of new uses and new markets for farm products. If agriculture was static as to its own productivity, then it might be safer for farmers to rely exclusively upon science to develop new markets to replace the foreign outlets and the Triple A programs which the Chemurgic Council would take away.

But the fact is that science is also brought to bear upon problems of farm production, and by improved plant and animal breeding, by better knowledge and use of soils, and more scientific farming methods of many kinds, agriculture can rapidly increase its capacity to produce. It is characteristic of our progressive country that we are determined to make use of new knowledge made available by science. To do otherwise would be to turn our backs upon the hope of progress. If a new cotton picker were perfected it would no doubt be used, and the long-time effects would be good. But a progressive country should also be prepared to deal with the immediate social dislocations and price and income disadvantages which result from far-reaching developments of this sort. Through use of more scientific methods, the opportunities for agriculture to step up its production are very great. Here are a few examples. In this country, the average production per hen at present is only about 80 eggs per year, while in some flocks the average has been increased to more than 200. The present averages of butterfat production per cow, of feeding ratios per pound of meat production, and of yields of corn, wheat and cotton per acre can all be increased greatly by more general use of scientific methods in animal and plant breeding. These are just a few examples taken from an immense field of scientific endeavor, but they illustrate the fact that agriculture is a dynamic producing industry, not a static one. Farmers will not make the mistake of supposing that their producing power will stand still while science is developing new industrial uses for farm products.



The fact probably is that in the future agriculture's growing power to produce will outrun all the increased markets that can be made available by scientific development of new industrial outlets. These increases in production will be of permanent benefit to society, and to agriculture, because in the long run increasing production is the basis for a higher standard of living if it is not accomplished through destruction of soil and other natural resources. But sudden increases in production or shrinkage of markets may cause temporary hardship by contributing to extreme unbalance of supply with demand. Farmers will not want to be deprived of their cooperative programs for meeting such emergencies. They will not want to give up these programs in return for extravagant promises that chemurgic developments may prove a panacea for all farm ills.

There is another reason why Department of Agriculture people, while doing their utmost for scientific development of new uses for farm products, still would not for a moment have farmers think of such development as a cure-all for the different problems facing agriculture. This reason is that in developing a new market for one agricultural product, science may decrease the demand for some other agricultural product. Thus the development of warm cotton fabrics may help cotton growers but injure wool growers and new uses of soybean oils may injure producers of flaxseed, of cottonseed, or of the animal fats and oils. When science developed synthetic methods of manufacturing dyes, it knocked the indigo growers out of their industry.

Summing up, it is clear than when viewed realistically, the effort to develop new industrial outlets for farm products is not the panacea that is claimed. It is one legitimate line of endeavor in behalf of agriculture, and presents opportunities of which the most should be made.

Men of science who are devoting their earnest efforts to this activity will not thank the Chemurgic Council for representing these efforts as offering benefits far beyond those actually attainable in the immediate future. They will



not thank the Chemurgic Council for telling agriculture to surrender foreign markets, embrace the rock-ribbed protectionist doctrine of the high tariff industrialist and surrender their Triple A program all in hopes that the Chemurgic Council will perform immediate and impossible miracles in the way of opening new markets at home. No greater disservice can be done to real science than to encourage the people to rely upon it for immediate help which it cannot give. No greater disservice can be done to farmers than to persuade them to go the limit in over-production of export crops, simultaneously sacrifice their foreign markets for the resulting surpluses, and depend upon new industrial outlets opening at home which cannot by any stretch of the imagination be opened soon enough to replace the markets which would be lost.

Back in 1932 agriculture and the nation learned the devastating consequences that can be invited by loss of markets abroad plus unlimited production at home. Surpluses which caused great unbalance between farm prices and other prices were a factor in the depression. The absence of purchasing power of farmers and of factory workers, and their inability to buy back the things produced by agriculture and by industry led to accumulations of surpluses in the hands of a few, in breakdown of the exchange of goods between farm and city and to unemployment in the city and ruin on the farm.

The problems of agriculture and industry are many sided. There are now great human needs in the South for farm products and factory products--needs which are unfilled, not because science cannot tell us how to produce the goods, nor because farmers do not know how to produce the foods, but because the problems of distribution have not been solved, and because purchasing power to buy these goods is lacking for many people. The chemurgic people tell us that they can provide new outlets for potatoes for starch, new outlets for corn for alcohol, and a host of other new industrial uses. But before such an outlet is of great use to the farmer, it must also include the payment to him of a price at which he



can afford to sell--and that means that the people must have buying power so they can purchase these new things. This is the point where so many of the chemurgic developments fall short of the expectations which are being built up for them.

Since 1933, the Administration in Washington has developed industrial and agricultural programs which have tried to place purchasing power in the hands of the farmers and industrial workers.

For agriculture, these programs have been broad, and the Administration is seeking to make them broader. The Administration has never represented that the problems of agriculture have been solved. We need to carry on our great program of soil conservation, because the resource of soil fertility is the ultimate foundation of our prosperity. It is true that a great war abroad might transform our situation, but that fact only magnifies the need to promote military peace through a return to sane and peaceful trade relations and to carry on our reciprocal trade agreement program. Through this program, we need to expand so far as practicable foreign outlets for export crops, including cotton. Farmers, especially in some regions, need improved protection, in the form of crop insurance, against the consequence of drought. We need measures to cope with problems of tenancy. Farmers should have the right to cooperate to check unbridled competition in sale of soil resources, and also to cooperate in programs to protect themselves against the price consequences of acute surpluses in time of bumper crops.

And of course we need all the help that science and industry can give in providing new outlets for farm products, too. But there is no justification for telling farmers that this one thing alone is a panacea that will make the other vital measures unnecessary. That, I hope, agriculture will not believe.



